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WE NEED A HEALTH APPROACH TO HEROIN.

I. WHAT IS HEROIN AND WHAT ARE THE EFFECTS OF HEROIN ON THE BODY?

WE NEED A HEALTH APPROACH TO HEROIN

So much of the information on heroin promotes fear and criminalization instead of helping people. To address our collective safety and well-being—and save lives—information on heroin must be factual so people can make safer choices. Our responses to people who use drugs must be rooted in health. Here is what you need to know:

Heroin is a man-made opioid drug that helps to relieve pain. It is derived from morphine, which comes from the opium poppy plant. People who use heroin say that it helps to reduce emotional and physical pain and that it also has calming effects. Heroin can be injected, snorted, smoked, or swallowed. Effects usually last for several hours, and they are felt most quickly when the drug is injected or smoked.

When someone consumes a large dose of heroin, they may be at risk of an opioid overdose. This is because their brain stops signaling to their lungs to breathe.

A HEROIN OVERDOSE CAN BE REVERSED BY IMMEDIATELY ADMINISTERING NALOXONE AND/OR OXYGEN TO THE INDIVIDUAL.

People are at higher risk of overdose when heroin is mixed with other opioids (e.g. fentanyl, codeine) or depressants (e.g. benzodiazepines, tranquilizers, sedatives, alcohol), or when it is used in combination with these drugs. Other opioids include fentanyl and codeine. People who have never used heroin or other opioids or have not used it a long time are also at higher risk of overdose. It is estimated that 1.1 million people used heroin in the US in 2021.¹

THE HEROIN SUPPLY IS ADULTERATED WITH FENTANYL AND OTHER DRUGS

Since 2013, fentanyl (a highly potent opioid) has been made in underground laboratories² and mixed into the heroin supply in North America. Crackdowns on heroin led suppliers to produce fentanyl because it is easier to smuggle and avoid detection. This is an example of how prohibition of one drug can lead to new, stronger drugs.

In some parts of the country, it is difficult to find heroin without fentanyl in it. Fentanyl analogues, which are chemically similar to fentanyl but have different potencies and effects³, have also been found in the heroin supply. Other new drugs such as nitazene analogues, xylazine, etizolam, and other opioids and benzodiazepines are being added to the heroin supply in some parts of the country as well.

HEROIN AND PREGNANCY

When heroin is consumed during pregnancy, it has been associated with neonatal abstinence syndrome (NAS) in newborns. Fortunately, NAS in newborns is a temporary condition that can be safely treated.

2. ARE THERE ANY MEDICAL USES OF HEROIN?

Heroin is not used medically in the United States. Heroin is currently classified as a Schedule I substance, which means that the federal government has determined that it has no currently accepted medical use and has a high potential for abuse. However, it is provided as an evidence-based treatment for opioid use disorders in several European countries such as Switzerland and Spain, and Canada. In Canada,⁴ it is also legally provided to some people who use street opioids as a safe supply alternative to the more unpredictable underground drug supply. This is in order to prevent overdoses and other adverse effects.

3. HOW LONG DOES HEROIN STAY IN THE SYSTEM?

Heroin effects can be felt for several hours, and effects are felt faster if it is injected or smoked.

**EFFECTS ARE FELT
FASTER IF HEROIN
IS INJECTED
OR SMOKED.**

Someone who recently used heroin may test positive on a urine drug test for several days after consuming the drug.

4. WHAT HAPPENS IF YOU MIX HEROIN WITH OTHER DRUGS?

Mixing heroin with other drugs can increase the risk of an overdose, especially if the other drugs are opioids or depressants. Depressant drugs include

alcohol, benzodiazepines (like Valium® and Xanax®), sedatives, and tranquilizers. When heroin is taken with these types of drugs, it can lead to drowsiness, sedation, unconsciousness, overdose, and death.

Most overdoses involving heroin and other opioids like fentanyl can be reversed if the person is immediately given oxygen and/or naloxone. Naloxone (also called Narcan®) is a drug that works to reverse an opioid overdose, including heroin overdose.

**HOWEVER, OVERDOSES THAT INVOLVE
HEROIN AND DEPRESSANT DRUGS
COULD REQUIRE ADDITIONAL MEDICAL
ATTENTION.**

This is because naloxone cannot reverse the effects of depressants.

Some people take heroin along with stimulant drugs like methamphetamine or cocaine. Stimulants cannot reverse opioid overdoses. In fact, they may put someone at risk of an overdose because someone might accidentally take too much heroin.

5. CAN YOU OVERDOSE ON HEROIN?

YES, YOU CAN OVERDOSE ON HEROIN.

Remember: not all overdoses are fatal, but even non-fatal overdoses can have lasting health effects.

Heroin has been involved in a smaller portion⁵ of overdose deaths in the United States since 2020 because it has been largely replaced by fentanyl.

People can overdose on heroin by taking too much or taking more than they anticipated. People with no or low opioid tolerance are most at risk for a heroin overdose if they accidentally consume too much of the drug. However, people with established opioid tolerance are also at risk for overdose. This is because they may be accustomed to consuming smaller doses, and people do not always know how much they are taking. Drugs in the underground market are not labeled and tested. This means people may accidentally consume high doses of heroin without their knowledge or their heroin may be mixed with other drugs like fentanyl. The risk of

a heroin overdose is higher if it is consumed with other opioids or depressant drugs, like fentanyl, alcohol, benzodiazepines, or tranquilizers.

BUT, HEROIN OVERDOSES CAN OFTEN BE REVERSED.

Most overdoses involving heroin and other opioids like fentanyl can be reversed if the person is immediately given oxygen and/or naloxone. Naloxone is a drug that works to reverse an opioid overdose, including heroin overdose. However, overdoses that involve heroin and depressant drugs could require additional medical attention. This is because naloxone cannot reverse the effects of depressants.

6. CAN YOU BECOME ADDICTED TO HEROIN AFTER USING IT THE FIRST TIME?

No, you cannot become addicted to heroin or any drug after using it only one time.

PHYSIOLOGICAL DEPENDENCE IS DIFFERENT FROM SUBSTANCE USE DISORDER.

People can develop a physiological dependence upon heroin if they use it repeatedly for several days or weeks in a row. Physiological dependence means that someone has developed an increased tolerance for a drug. They need to use more to get a desired effect. It also means they may experience physical withdrawal symptoms if they suddenly stop using a drug.

ADDICTION AND SUBSTANCE USE DISORDER

A person only meets the criteria for a substance use disorder if they continue to use a drug repeatedly despite experiencing numerous harms and negative consequences.

NOT EVERYONE WHO HAS PHYSIOLOGICAL DEPENDENCE ON A DRUG HAS A SUBSTANCE USE DISORDER.

Chronic pain patients will naturally develop physiological dependence from taking their medication. But it often allows them to function and live fulfilling lives.

METHADONE AND BUPRENORPHINE, WHICH MAY ALSO CAUSE PHYSICAL DEPENDENCE, ARE HIGHLY EFFECTIVE TREATMENTS FOR OPIOID USE DISORDER.

People who take methadone or buprenorphine for opioid use disorder can achieve recovery and meet their goals.

7. WHAT ARE TREATMENT OPTIONS FOR OPIOID USE DISORDER?

People with opioid use disorder and those who use heroin have several treatment options⁶ if they want help. Substance use disorder treatment involves professionally delivered psychosocial treatment and/or medications to reduce problematic drug use and improve health and quality of life. These services are provided in a variety of settings. This includes specialized treatment facilities like outpatient, inpatient, or residential centers. It can also include medical settings, such as hospitals and clinics. We at DPA believe that people should be able to choose the options that work best for them.

METHADONE IS SEEN AS THE "GOLD STANDARD" TREATMENT FOR OPIOID USE DISORDER.

Of these treatments, medication assisted therapies have proven to be the most effective forms of treatment for opioid use disorder. There are 3 medications approved by the Food and Drug Administration (FDA) to treat opioid use disorder. These are methadone, buprenorphine (e.g., Suboxone), and naltrexone (e.g., Vivitrol).

Methadone is seen as the "gold standard" treatment for opioid use disorder. Research has shown⁷ for decades that it helps people to cut down on street

opioids. It also helps patients to gain stability in their lives so they can reach their goals. To obtain methadone in the U.S., patients must visit special clinics. Due to strict regulations, most patients are required to be observed while taking their doses there, on a daily or near-daily basis.

Buprenorphine is a medication with similar benefits to methadone. Patients do not need to visit specially regulated clinics to obtain buprenorphine. However, until the recent passage of the MAT Act in Congress, medical professionals had to undergo additional training and get a special DEA waiver, commonly called the X-waiver, in order to prescribe buprenorphine.

Research shows that patients who take methadone or buprenorphine are less likely to experience cravings and withdrawal⁸ and are less likely to overdose than people who do not take these medications for their opioid use disorder.⁹

The research on naltrexone is more mixed,¹⁰ but it can be helpful for some people who voluntarily choose this option.

8. WHAT ARE HARM REDUCTION STRATEGIES FOR HEROIN USE?

There are several important harm reduction strategies for people who use heroin.

USE STERILE AND NEW EQUIPMENT.

Heroin can be injected, smoked, or snorted. When possible, people who use heroin should use sterile and new equipment every time. Supplies may include syringes, cookers, pipes, and straws. People should also avoid sharing equipment with others. Reusing or sharing equipment can place users at risk of skin and soft tissue infections, and spread diseases like HIV and Hepatitis C.

NEVER USE ALONE.

People should avoid using heroin alone. They should make sure that someone has naloxone (the opioid reversal medication) on hand in case of an overdose.

CHECK DRUGS IF POSSIBLE.

People also should use fentanyl test strips or other available drug checking technologies to test their heroin for other adulterants. Fentanyl test strips are often available at harm reduction programs, and can tell someone whether or not fentanyl is present. However, they cannot tell someone how much fentanyl is present.

GO SLOW.

People should “go slow,” dilute their drugs, or take a little bit at a time to reduce the risk of an overdose by accidentally taking too much. It is also advised that people do not take heroin in combination with other opioids or depressant drugs, including alcohol. This can increase the risk of an overdose.

9. WHAT ARE DRUG POLICIES TO HELP PEOPLE WHO USE HEROIN TO BE SAFER?

There are many policies we can pass at the local, state, and federal level to help people who use heroin to stay safe.

- **Invest in addiction services.** A full range of addiction services—including counseling, medications, long-term treatment, and recovery housing—should be available to individuals. Personalized support reduces overdose risk and improves recovery chances.
- **Expand access to addiction medications.** Medications like methadone and buprenorphine promote recovery and save lives by reducing opioid cravings and withdrawal symptoms, while cutting overdose risk in half. They should be widely available, including in jails and prisons.
- **Address demand (root causes of heroin use).** Heroin offers pain relief—many people use it to cope with physical or emotional pain. Ensuring people have access to housing, community, mental health services, and jobs can help address why people are using.

- **Increase access to interventions like naloxone and sterile supplies that reduce overdose deaths and infectious diseases.** Naloxone saves lives by immediately reversing an active opioid/fentanyl overdose. Sterile supplies like syringes and smoking kits reduce the transmission of infectious diseases. These supplies should be widely available to people who use drugs, and their use and possession should not be criminalized.
- **Authorize overdose prevention centers (OPC) on the state and local level.** These centers provide connections to care and can respond to an active overdose at its earliest sign, preventing overdose deaths, saving lives, and promoting recovery in the process.
- **Ensure people have access to their basic needs, like housing.** Offer retroactive record clearing and the removal of civil penalties for drug convictions so people have more access to jobs, housing, and benefits.
- **Prioritize a health approach to drugs, end criminal penalties.** Shift drug policy from criminal penalties to public health, focusing on treatment, housing, jobs, healthcare, overdose prevention, and crisis response teams to provide effective support and resources.
- **Improve drug checking and data collection.** This will help us better understand the current drug supply, create warnings, and offer better solutions.
- **Expand research and services for polysubstance use.** Many people with substance use disorders use multiple drugs. Research and addiction services must account for polysubstance use to improve services and outcomes.

Drug Policy Alliance (DPA) recommends a comprehensive, health-based response to the overdose crisis to keep people safe and healthy. There is growing public acceptance of the fact that drug use is a health issue, not a criminal one.

Unfortunately, some elected officials and members of law enforcement continue to call for draconian criminal policies to drive up support for policies that hurt people instead of helping them.

END NOTES

1. Substance Abuse and Mental Health Services Administration. (2022). Key substance use and mental health indicators in the United States: Results from the 2021 National Survey on Drug Use and Health (HHS Publication No. PEP22-07-01-005, NSDUH Series H-57). Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. <https://www.samhsa.gov/data/report/2021-nsduh-annual-national-report>
2. Ciccarone, Daniel. 2017. "Fentanyl in the US Heroin Supply: A Rapidly Changing Risk Environment." *International Journal of Drug Policy*, July. <https://doi.org/10.1016/j.drugpo.2017.06.010>.
3. Pardo, Bryce, Jirka Taylor, Jonathan P. Caulkins, Beau Kilmer, Peter Reuter, and Bradley D. Stein. 2019. "The Future of Fentanyl and Other Synthetic Opioids." Product Page. https://www.rand.org/pubs/research_reports/RR3117.html.
4. https://www.emcdda.europa.eu/system/files/publications/690/Heroin_insight_335259.pdf
5. <https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm>
6. https://www.emcdda.europa.eu/system/files/publications/690/Heroin_insight_335259.pdf
7. Mattick RP, Breen C, Kimber J, Davoli M. Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence. *Cochrane Database Syst Rev*. 2009 Jul 8;2009(3):CD002209. <https://doi.org/10.1002/14651858.CD002209.pub2>. PMID: 19588333; PMCID: PMC7097731.
8. <https://ps.psychiatryonline.org/doi/full/10.1176/appi.ps.201300256>
9. Larochelle, Marc R, Dana Bernson, Thomas Land, Thomas J. Stopka, Na Wang, Ziming Xuan, Sarah M. Bagley, Jane M. Liebschutz, and Alexander Y. Walley. 2018. "Medication for Opioid Use Disorder After Nonfatal Opioid Overdose and Association With Mortality: A Cohort Study." *Annals of Internal Medicine*, June. <https://doi.org/10.7326/M17-3107>.
10. Wolfe, Daniel, and Roxanne Saucier. 2021. "Biotechnologies and the Future of Opioid Addiction Treatments." *International Journal of Drug Policy* 88 (February): 103041. <https://doi.org/10.1016/j.drugpo.2020.103041>.